REMARKS

Claim Amendments:

Claims 63-109 are pending in the present application. Claims 63, 64 and 109 have been amended to replace the recitation "and salts thereof" with the recitation "or salts thereof" to provide proper Markush language.

Claim 64 has been further amended to provide the definitions of alkyl group in R; substituted alkyl in S; alkenyl in T; substituted alkenyl in U; alkynyl in V; and substituted alkynyl in W. Support for this amendment can be found, for example, at page 30, line 23 through page 31, line 2; and page 33 of the originally-filed application.

Claim 64 has been yet further amended to incorporate a proviso excluding from the scope of this claim the relevant compounds disclosed in U.S. 5,644,055 cited by the Examiner in the outstanding Office Action.

Accordingly, no new matter has been entered. Entry of this amendment is earnestly solicited.

Attached are a marked up version of the previous version of Claims 63, 64 and 109 and a clean version of the entire set of pending Claims 63-109.

Rejection under 35 U.S.C. §112, Second Paragraph

Claims 63-109 stand rejected under 35 U.S.C. §112, second paragraph, as purportedly indefinite.

The Office Action asserts that the end of Claims 63, 64 and 109 which reads "and salts thereof" is improper Markush language. Complying with the Examiner's suggestion, Applicants have replaced "and salts thereof" with "or salts thereof." Accordingly, this rejection is overcome. Withdrawal of the rejection is respectfully requested.

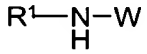
Rejections under 35 U.S.C. §102

Fritz et al. (U.S. Patent 6,200,969)

Claims 64 and 109 stand rejected under 35 U.S.C. §102(e) as being anticipated by Fritz et al. (U.S. Patent 6,200,969). The Examiner asserts that claims read on compounds on Figures 4 and 5 of the reference. This rejection is respectfully traversed.

Initially, it is well established law that to anticipate a claim, a single prior art reference must teach, either expressly or inherently, each and every element of the claimed invention. See M.P.E.P. § 2131; Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1379, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986).

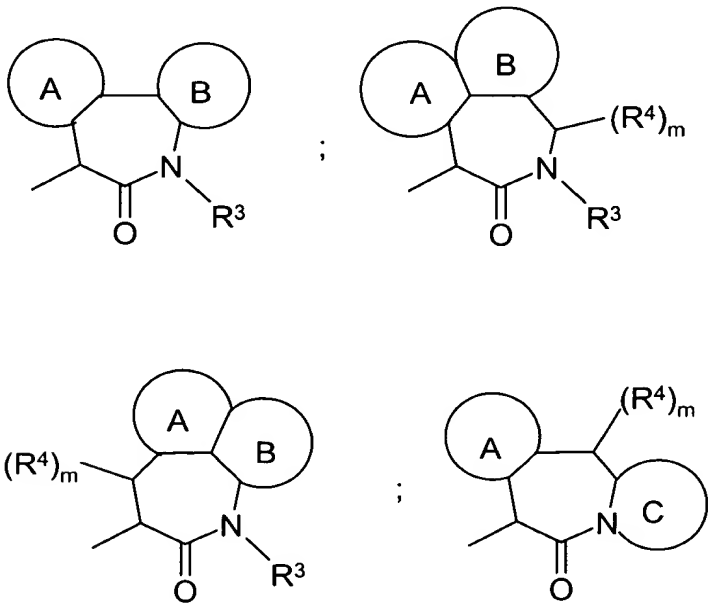
Claim 64 is directed to a compound of formula II:

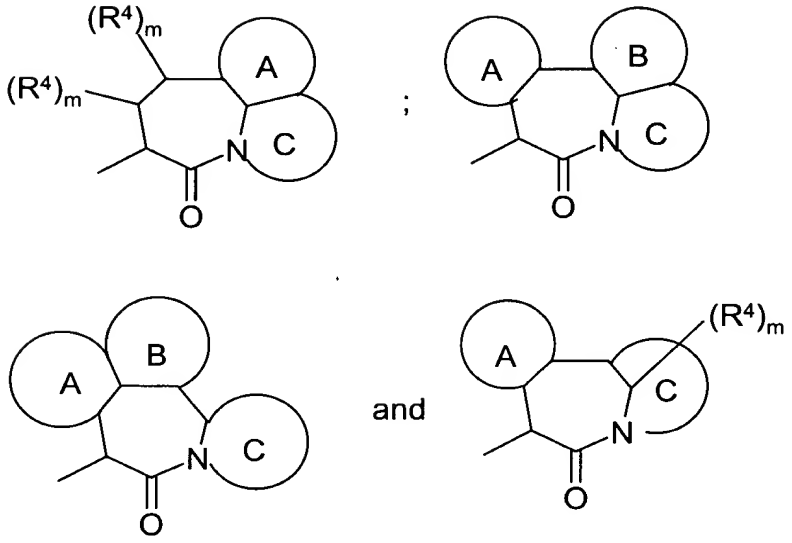


II

wherein

W is a substituted ϵ-caprolactam selected from the group consisting of:





wherein

ring *A*, together with the atoms of the ϵ-caprolactam to which it is attached, forms a carbocyclic or heterocyclic ring selected from the group consisting of:

A) aryl having from 6 to 14 ring carbon atoms substituted with from 1 to 5 substituents;

B) cycloalkyl of from 3 to 12 carbon atoms;

C) substituted cycloalkyl having 3 to 12 carbon atoms and from 1 to 5 substituents;

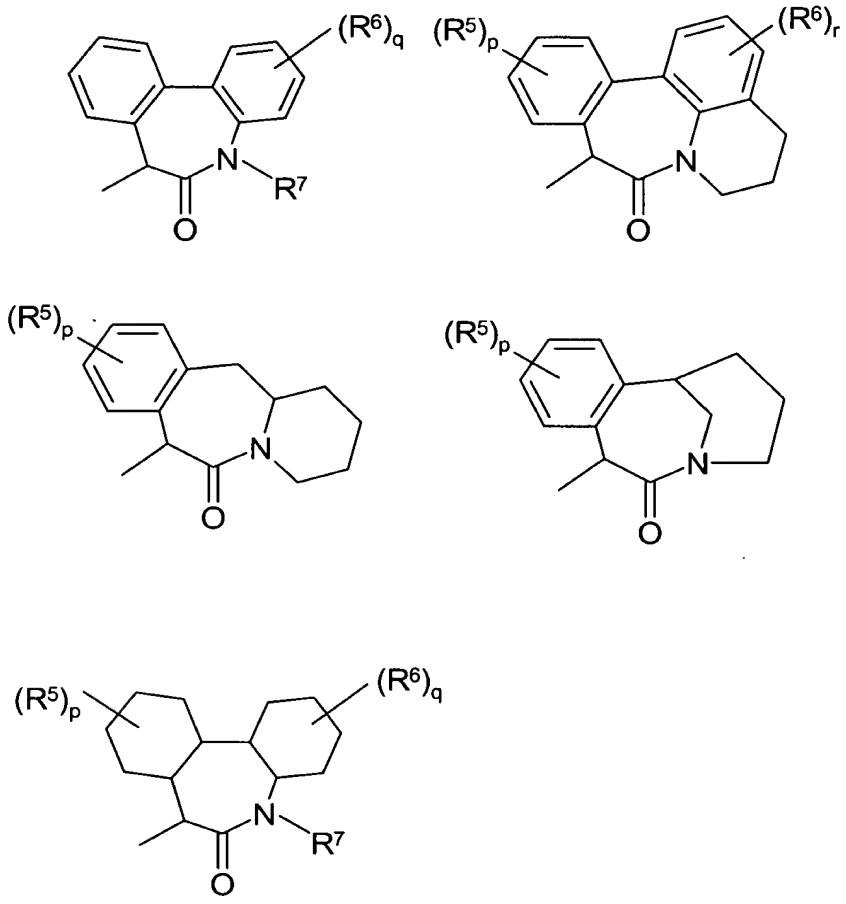
D) cycloalkenyl of from 4 to 8 carbon atoms;

E) substituted cycloalkenyl having from 4 to 8 carbon atoms and from 1 to 5 substituents;

F) heteroaryl of from 1 to 15 ring carbon atoms and 1 to 4 ring heteroatoms selected from oxygen, nitrogen and sulfur, substituted with from 1 to 5 substituents;

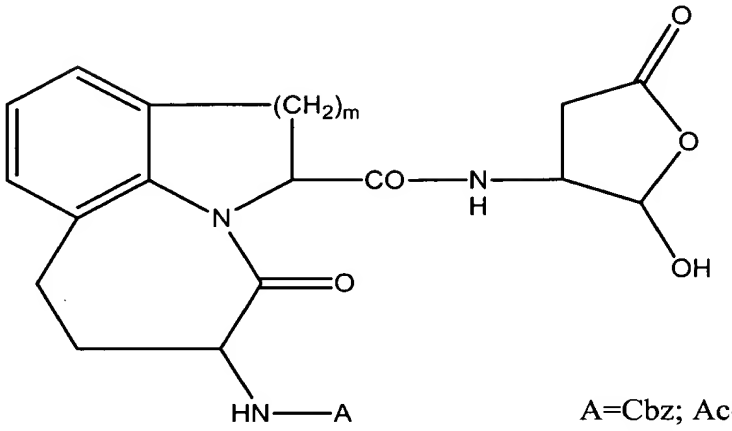
G) heterocyclic of from 1 to 15 ring carbon atoms and from 1 to 4 ring atoms selected from nitrogen, sulfur and oxygen, substituted with from 1 to 5 substituents.

Claim 109 is directed to a specific, chemically named compound selected from the group consisting of polycyclic α-amino-ϵ-caprolactams of the following core structures:

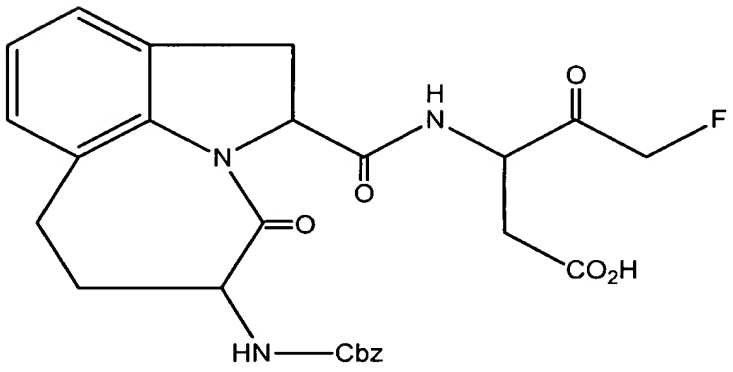


The cited Fritz et al. reference provides methods for expanding and increasing survival of hematopoietic cell populations, for prolonging viability of an organ for transplantation, and enhancing bioproduction, using interleukin-1β-converting enzyme (ICE)/CED-3 family inhibitors. Fritz et al. does not provide any teachings directed to the subject matter of the present invention, i.e., the discovery of a class of intermediates which are useful in the preparation the cycloalkyl, lactam, lactone and related compounds, which compounds inhibit β-amyloid peptide release and/or its synthesis.

Figures 4 and 5 of the Fritz et al. reference are limited to disclosure of the following structures:



A=Cbz; Ac-Asp; succinyl; Cbz-Asp; dihydrocinnamoyl; Ac; Benzoyl; 1-Naphthoyl; Cbz
m=1 or 2



Nowhere Fritz et al. teach a compound of Claim 64. In fact, Fritz et al. teach away from the compound of Claim 64 because ring A in the disclosed compounds of this reference is unsubstituted phenyl while Claim 64 requires ring A to be a substituted aryl having from 6 to 14 ring carbon atoms substituted with from 1 to 5 substituents.

Nor do Fritz et al. teach any compound listed in Claim 109, all of which have distinctly different core structures from the cited reference.

Absent such teachings, this rejection is in error. Withdrawal of the rejection is requested.

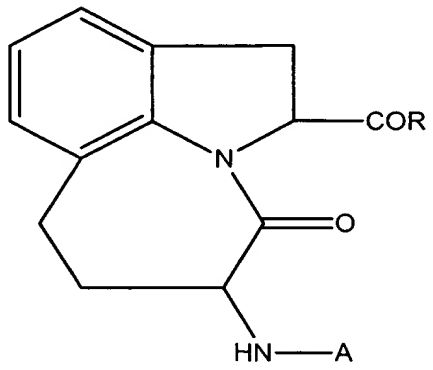
Gyorkos et al. (U.S. Patent 5,618,792)

Claims 64 and 109 stand rejected under 35 U.S.C. §102(e) as being anticipated by Gyorkos et al. (U.S. Patent 5,618,792). The Examiner asserts that claims read on compounds of RN 204326-24-9 of the reference. This rejection is respectfully traversed.

Initially, Applicants note that the relevant compounds listed in the attached abstract are not disclosed in the cited Gyorkos et al. (U.S. Patent 5,618,792). These compounds, however, are disclosed in Gyorkos et al. (U.S. Patent 6,150,334), a copy of which Applicants have included in a Supplemental IDS attached to the present response.

Gyorkos et al. (U.S. Patent 6,150,334) provides selective inhibitors of human neutrophil elastase useful for the treatment and/or prevention of elastase-mediated problems. Gyorkos et al. does not provide any teachings directed to the subject matter of the present invention, i.e., the discovery of a class of intermediates which are useful in the preparation the cycloalkyl, lactam, lactone and related compounds, which compounds inhibit β-amyloid peptide release and/or its synthesis.

Compounds disclosed by the Gyorkos et al. reference, have the following core structure:



Nowhere Gyorkos et al. teach a compound of Claim 64. In fact, Gyorkos et al. teach away from the compound of Claim 64 because ring A in compounds of this reference is unsubstituted phenyl while Claim 64, as discussed above, requires ring A to be a substituted aryl having from 6 to 14 ring carbon atoms substituted with from 1 to 5 substituents.

Nor do Gyorkos et al. teach any compound listed in Claim 109, all of which have distinctly different core structures.

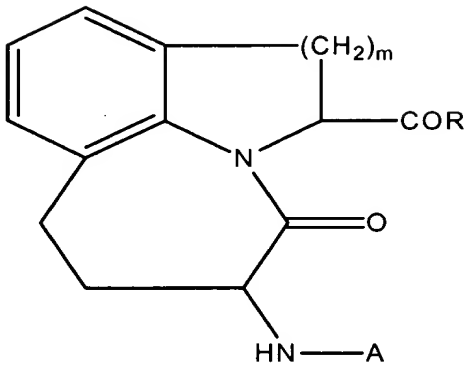
Absent such teachings, this rejection is in error. Withdrawal of the rejection is requested.

Karanewsky et al. (U.S. Patent 5,968,927)

Claims 64 and 109 stand rejected under 35 U.S.C. §102(b) as being anticipated by Karanewsky et al. (U.S. Patent 5,968,927). The Examiner asserts that claims read on compounds disclosed on cols. 17-19 and Examples 1-34 of the reference. This rejection is respectfully traversed.

Karanewsky et al. (U.S. Patent 5,968,927) provides inhibitors of interleukin-1β converting enzyme and ICE/ced-3 family of cysteine proteases useful for the treatment and/or prevention of interleukin-1 ("IL-1") mediated diseases. Karanewsky et al. does not provide any teachings directed to the subject matter of the present invention, i.e., the discovery of a class of intermediates which are useful in the preparation the cycloalkyl, lactam, lactone and related compounds, which compounds inhibit β-amyloid peptide release and/or its synthesis.

The compounds disclosed by the Karanewsky et al. reference, have the following core structure:



Nowhere Karanewsky et al. teach a compound of Claim 64. In fact, Karanewsky et al. teach away from the compound of Claim 64 because ring A in compounds of this reference is unsubstituted phenyl while Claim 64, as discussed above, requires ring A to be a substituted aryl having from 6 to 14 ring carbon atoms substituted with from 1 to 5 substituents.

Nor do Karanewsky et al. teach any compound listed in Claim 109, all of which have distinctly different core structures from the cited reference.

Absent such teachings, this rejection is in error. Withdrawal of the rejection is requested.

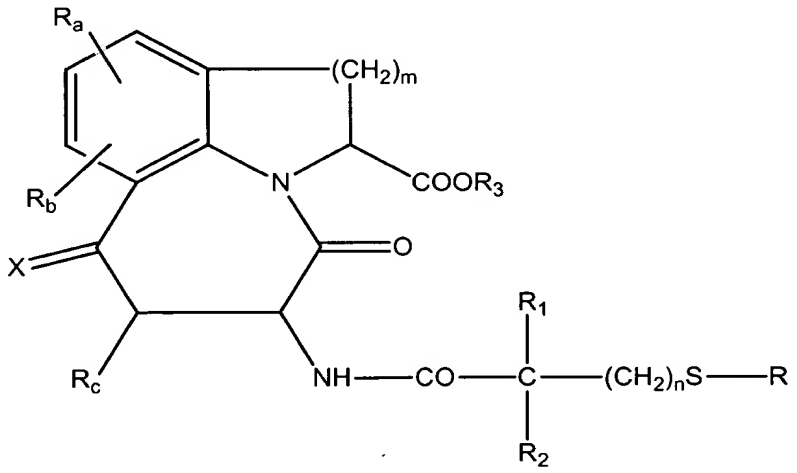
De Lombaert (U.S. Patent 5,644,055)

Claims 64 and 109 stand rejected under 35 U.S.C. §102(b) as being anticipated by De Lombaert (U.S. Patent 5,644,055). The Examiner asserts that claims read on several compounds of the reference.

De Lombaert describes tricyclic azepine derivatives which are useful as angiotensin converting enzyme (ACE) inhibitors and as neutral endopeptidase. De Lombaert does not provide any teachings directed to the subject matter of the present invention, i.e., the

discovery of a class of intermediates which are useful in the preparation the cycloalkyl, lactam, lactone and related compounds, which compounds inhibit β-amyloid peptide release and/or its synthesis.

Applicants respectfully disagree with the rejection of Claim 109 over this reference. De Lombaert describes the azepino[3,2,1-hi]indole and 1H-pyrido-[3,2,1-jk][1]benzazepine derivatives of the formula:



wherein

X represents oxo, one hydroxy or lower alkoxy and one hydrogen, or two hydrogens;

R_a and R_b independently represent hydrogen, hydroxy, lower alkoxy, nitro, amino or halogen; or R_a and R_b on adjacent carbons taken together represent lower alkylenedioxy;

R_c represents hydrogen, lower alkyl or aryl-lower alkyl;

R represents hydrogen or acyl;

R_1 represents hydrogen, lower alkyl, aryl, aryl-lower alkyl, cycloalkyl, cycloalkyl-lower alkyl, biaryl, biaryl-lower alkyl or trifluoromethyl;

R_2 represents hydrogen or lower alkyl; or R_1 and R_2 together with the carbon to which they are attached represent cycloalkylene or benzo-fused cycloalkylene;

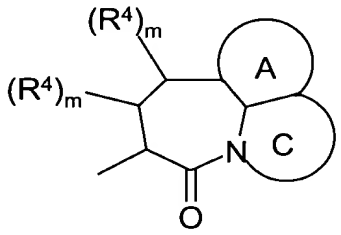
m represents one or two;

n represents zero or one;

$COOR_3$ represents carboxyl or carboxyl derivatized in form of a pharmaceutically acceptable ester;
disulfide derivatives formed from said compounds wherein R is hydrogen;
and pharmaceutically acceptable salts thereof.

Compounds of Claim 109 discussed above have distinctly different core structures from the core structure of compounds of De Lombaert. Accordingly, De Lombaert does not anticipate Claim 109. Withdrawal of the rejection is requested.

As to Claim 64, this rejection has been obviated by amending Claim 64 to include the proviso which reads that when *W* is



wherein ring A is phenyl substituted with hydroxy, lower alkoxy, nitro, amino or halogen; ring C is substituted cycloalkyl having 4 or 5 carbon atoms and carboxyl or carboxylalkyl substituent in α-position to nitrogen, then R^1 is not $-CO-CR^5R^6-(CH_2)_nS-R^7$ wherein R^5 represents hydrogen, lower alkyl, aryl, aryl-lower alkyl, cycloalkyl, cycloalkyl-lower alkyl, biaryl, biaryl-lower alkyl or trifluoromethyl; R^6 represents hydrogen or lower alkyl; or R^5 and R^6 together with the carbon to which they are attached represent cycloalkylene or benzo-fused cycloalkylene, R^7 represents hydrogen or acyl and n represents zero or one.

Accordingly, this rejection is overcome. Withdrawal of the rejection is requested.

Rejections under 35 U.S.C. §103(a)

Claims 64 and 109 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Karanewsky et al. (U.S. Patent 5,968,927). The Examiner asserts that the reference teaches a generic group of useful compounds which embraces applicants' claimed

compounds, and, thus, render prima facie obvious the compounds of Claims 64 and 109 allegedly falling within this generic group. This rejection is respectfully traversed.

Under MPEP 2144.08,II.A.1, in order to determine whether the claimed species or subgenus would have been obvious to one of ordinary skill in the pertinent art, as an initial matter, Office personnel should determine the scope and content of the relevant prior art. Each reference must qualify as prior art under 35 U.S.C. § 102 (e.g., *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987) ("Before answering *Graham's* 'content' inquiry, it must be known whether a patent or publication is the prior art under 35 U.S.C. § 102.")) and should be in the field of applicant's endeavor, or be reasonably pertinent to the particular problem with which the inventor was concerned. *In re Oetiker*, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). *Accord,* e.g., *In re Clay*, 966 F.2d 656, 658-59, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

In the case of a prior art reference disclosing a genus, Office personnel should make findings as to:

(A) the structure of the disclosed prior art genus and that of any expressly described species or subgenus within the genus;

(B) any physical or chemical properties and utilities disclosed for the genus, as well as any suggested limitations on the usefulness of the genus, and any problems alleged to be addressed by the genus;

(C) the predictability of the technology; and

(D) the number of species encompassed by the genus taking into consideration all of the variables possible. MPEP 2144.08,II.A.1.

Applicants maintain that the Office Action fails to satisfy the requirements of MPEP 2144.08, II.A.1 at least for the following reasons.

First, as discussed above, Karanewsky et al. do not anticipate compounds of either Claim 64 or Claim 109. In fact, Karanewsky et al. teach away from the compounds of Claim 64 because ring A in compounds of this reference is unsubstituted phenyl while

Claim 64 requires ring A to be a substituted aryl having from 6 to 14 ring carbon atoms substituted with from 1 to 5 substituents. As to compounds of Claim 109, their core structures, as shown above, have nothing in common with the core structure of compounds of Karanewsky et al. Accordingly, in light of these distinct structural differences, compounds of Claims 64 and 109 do not fall within the generic group of Karanewsky et al.

Second, in addition to the noted structural differences between compounds of Claims 64 and 109 and compounds of Karanewsky et al. which prevents a genus-species relationship between them, this reference also does not provide any physical or chemical properties and utilities relevant to the present invention. As discussed above, Karanewsky et al. provides inhibitors of interleukin-1β converting enzyme and ICE/ced-3 family of cysteine proteases useful for the treatment and/or prevention of interleukin-1 ("IL-1") mediated diseases. Karanewsky et al. does not provide any teachings directed to the subject matter of the present invention, i.e., the discovery of a class of intermediates which are useful in the preparation the cycloalkyl, lactam, lactone and related compounds, which compounds inhibit β-amyloid peptide release and/or its synthesis.

Accordingly, the Karanewsky et al. reference neither qualifies as prior art under 35 U.S.C. § 102 nor is in the field of applicant's endeavor, or be reasonably pertinent to the particular problem with which the present invention is concerned, and shall not be used for the purposes of rejection based on obviousness of species when prior art teaches a genus. Withdrawal of the rejection is requested.

CONCLUSION

For the reasons set forth above, Applicants submit that the claims of this application are patentable. Reconsideration and withdrawal of the Examiner's rejections are hereby requested. Early allowance of the claims of this application is earnestly solicited.

Respectfully submitted,

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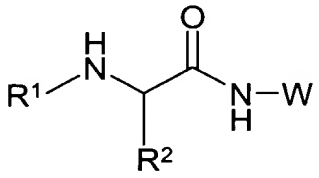
(650) 622-2300

Date: April 15, 2003

Attachment A

Marked-Up Copy of Amended Claims 63, 64 and 109

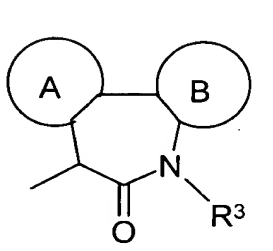
63. (Twice Amended) A compound of formula I:



I

wherein

W is a substituted ϵ-caprolactam selected from the group consisting of:



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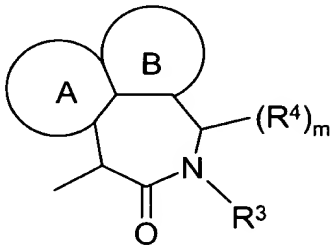

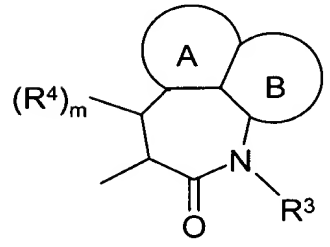

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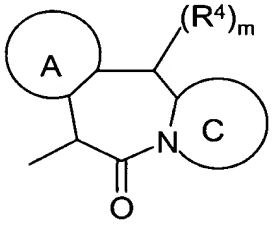

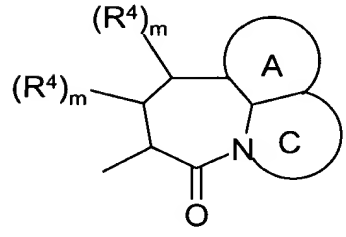

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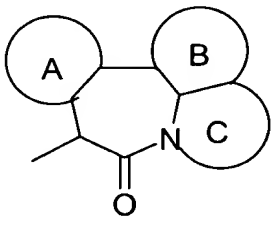
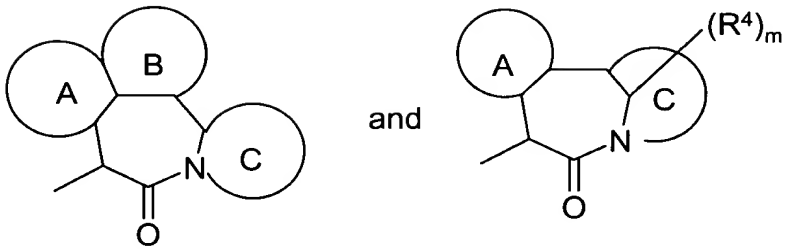




wherein

ring *A*, together with the atoms of the ϵ-caprolactam to which it is attached, forms a carbocyclic or heterocyclic ring selected from the group consisting of:

A) aryl having from 6 to 14 ring carbon atoms substituted with from 1 to 5 substituents selected from the group consisting of:

1) acyloxy selected from alkyl-C(O)O-, substituted alkyl -C(O)O-, cycloalkyl-C(O)O-, substituted cycloalkyl-C(O)O-, aryl-C(O)O-, heteroaryl-C(O)O-, and heterocyclic-C(O)O- wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein cycloalkyl is defined in B herein; wherein substituted cycloalkyl is defined in C herein; wherein aryl is defined in A herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

2) hydroxy;

3) acyl selected from alkyl-C(O)-, substituted alkyl-C(O)-, cycloalkyl-C(O)-, substituted cycloalkyl-C(O)-, aryl-C(O)-, heteroaryl-C(O)- and heterocyclic-C(O)- wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein cycloalkyl is defined in B herein; wherein substituted cycloalkyl is defined in C herein; wherein aryl is defined in A herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

4) alkyl as defined in R herein;

5) alkoxy having the formula alkyl-O- wherein alkyl is defined in R herein;

6) alkenyl as defined in T herein;

7) alkynyl as defined in V herein;

8) substituted alkyl as defined in S herein;

9) substituted alkoxy of the formula substituted alkyl-O- where substituted alkyl is as defined in S herein;

10) substituted alkenyl as defined in U herein;

11) substituted alkynyl as defined in W herein;

12) amino having the formula $-NH_2-$;

13) substituted amino having the formula $-N(R)_2$ where each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, aryl, cycloalkyl, substituted cycloalkyl, heteroaryl, heterocyclic and where both R groups are joined to form a heterocyclic group; wherein alkyl is defined in R herein; substituted alkyl is defined in S herein; wherein alkenyl is defined in T herein; wherein substituted alkenyl is defined in U herein; wherein alkynyl is defined in V herein; wherein substituted alkynyl is defined in W herein; wherein aryl is defined in A herein; wherein cycloalkyl is defined in B herein; wherein substituted cycloalkyl is defined in C herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

14) aminoacyl having the formula -NRC(O)R wherein each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl or heterocyclic; wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein aryl is defined in A

herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

15) acylamino having the formula -C(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic or where both R groups are joined to form a heterocyclic group; wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein aryl is defined in A herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

16) alkaryl of the formula -alkylene-aryl having 1 to 8 carbon atoms in the alkylene moiety wherein aryl is defined in A herein and alkylene is a divalent alkyl where alkyl is defined in R herein;

17) aryl as defined in A herein;

18) aryloxy having the formula -aryl-O wherein aryl is defined in A herein;

19) azido;

20) carboxyl;

21) carboxylalkyl having the formula -C(O)Oalkyl and -C(O)O-substituted alkyl wherein alkyl as defined in R herein and substituted alkyl is defined in S herein;

22) cyano;

23) halo selected from fluoro, chloro, bromo and iodo;

24) nitro;

25) heteroaryl as defined in F herein;

26) heterocyclic as defined in G herein;

27) aminoacyloxy having the formula -NRC(O)OR wherein each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl or heterocyclic; wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein aryl is defined in A

herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

28) oxyacylamino having the formula -OC(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein aryl is defined in A herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

29) thioalkoxy having the formula -S-alkyl, wherein alkyl as defined in R herein;

30) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in S herein;

31) thioaryloxy having the formula aryl-S- wherein aryl is defined in A herein;

32) thioheteroaryloxy having the formula heteroaryl-S- wherein heteroaryl is defined F herein;

33) -SO-alkyl wherein alkyl is defined in R herein;

34) -SO-substituted alkyl wherein substituted alkyl is defined in S herein;

35) -SO-aryl wherein aryl is defined in A herein;

36) -SO-heteroaryl wherein heteroaryl is defined in F herein;

37) $-SO_2$-alkyl wherein alkyl is defined in R herein;

38) $-SO_2$-substituted alkyl wherein substituted alkyl is defined in S herein;

39) $-SO_2$-aryl wherein aryl is defined in A herein;

40) $-SO_2$-heteroaryl wherein heteroaryl is defined in F herein; and

41) trihalomethyl wherein halo is defined in A23 herein;

B) cycloalkyl of from 3 to 12 carbon atoms;

C) substituted cycloalkyl having 3 to 12 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) alkoxy as defined in A5 herein;

2) substituted alkoxy as defined in A9 herein;
3) cycloalkyl as defined in B herein;
4) substituted cycloalkyl as defined in C herein;
5) cycloalkenyl as defined in D herein;
6) substituted cycloalkenyl as defined in E herein;
7) acyl as defined in A3 herein;
8) acylamino as defined in A15 herein;
9) acyloxy as defined in A1 herein;
10) amino as defined in A12 herein;
11) substituted amino as defined in A13 herein;
12) aminoacyl as defined in A14 herein;
13) aminoacyloxy as defined in A27 herein;
14) oxyacylamino as defined in A28 herein;
15) cyano;
16) halogen wherein halo is defined in A23 herein;
17) hydroxyl;
18) carboxyl;
19) carboxylalkyl as defined in A21 herein;
20) keto having the formula =O;
21) thioketo having the formula =S;
22) thiol having the formula -SH;
23) thioalkoxy as defined in A29 herein;
24) substituted thioalkoxy as defined in A30 herein;
25) aryl as defined in A herein;
26) aryloxy as defined in A18 herein;
27) heteroaryl as defined in F herein;
28) heteroaryloxy having the formula -O-heteroaryl wherein heteroaryl is defined in F herein;
29) heterocyclic as defined in G herein;

30) heterocyclooxy having the formula -O-heterocyclic wherein heterocyclic is defined in G herein;

31) hydroxyamino;

32) alkoxyamino wherein alkoxy is defined in A5 herein;

33) nitro;

34) -SO-alkyl as defined in A33 herein;

35) -SO-substituted alkyl as defined in A34 herein;

36) -SO-aryl as defined in A35 herein;

37) -SO-heteroaryl as defined in A36 herein;

38) $-SO_2$-alkyl as defined in A37 herein;

39) $-SO_2$-substituted alkyl as defined in A38 herein;

40) $-SO_2$-aryl as defined in A39 herein; and

41) $-SO_2$-heteroaryl as defined in A40 herein;

D) cycloalkenyl of from 4 to 8 carbon atoms;

E) substituted cycloalkenyl having from 4 to 8 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) alkoxy as defined in A5 herein;

2) substituted alkoxy as defined in A9 herein;

3) cycloalkyl as defined in B herein;

4) substituted cycloalkyl as defined in C herein;

5) cycloalkenyl as defined in D herein;

6) substituted cycloalkenyl as defined in E herein;

7) acyl as defined in A3 herein;

8) acylamino as defined in A15 herein;

9) acyloxy as defined in A1 herein;

10) amino as defined in A12 herein;

11) substituted amino as defined in A13 herein;

12) aminoacyl as defined in A14 herein;

13) aminoacyloxy as defined in A27 herein;

14) oxyacylamino as defined in A28 herein;

15) cyano;

16) halogen wherein halo is defined in A23 herein;

17) hydroxyl;

18) carboxyl;

19) carboxylalkyl as defined in A21 herein;

20) keto as defined in C20 herein;

21) thioketo as defined in C21 herein;

22) thiol as defined in C22 herein;

23) thioalkoxy as defined in A29 herein;

24) substituted thioalkoxy as defined in A30 herein;

25) aryl as defined in A herein;

26) aryloxy as defined in A18 herein;

27) heteroaryl as defined in F herein;

28) heteroaryloxy as defined in C28 herein;

29) heterocyclic as defined in G herein;

30) heterocyclooxy as defined in C30 herein;

31) hydroxyamino;

32) alkoxyamino as defined in C32 herein;

33) nitro;

34) -SO-alkyl as defined in A33 herein;

35) -SO-substituted alkyl as defined in A34 herein;

36) -SO-aryl as defined in A35 herein;

37) -SO-heteroaryl as defined in A36 herein;

38) $-SO_2$-alkyl as defined in A37 herein;

39) $-SO_2$-substituted alkyl as defined in A38 herein;

40) $-SO_2$-aryl as defined in A39 herein; and

41) $-SO_2$-heteroaryl as defined in A40 herein;

F) heteroaryl of from 1 to 15 ring carbon atoms and 1 to 4 ring heteroatoms selected from oxygen, nitrogen and sulfur, substituted with from 1 to 5 substituents selected from:

1) acyloxy as defined in A1 herein;
2) hydroxy;
3) acyl as defined in A3 herein;
4) alkyl as defined in R herein;
5) alkoxy as defined in A5 herein;
6) alkenyl as defined in T herein;
7) alkynyl as defined in V herein;
8) substituted alkyl as defined in S herein;
9) substituted alkoxy as defined in A9 herein;
10) substituted alkenyl as defined in U herein;
11) substituted alkynyl as defined in W herein;
12) amino as defined in A12 herein;
13) substituted amino as defined in A13 herein;
14) aminoacyl as defined in A14 herein;
15) acylamino as defined in A15 herein;
16) alkaryl as defined in A16 herein;
17) aryl as defined in A herein;
18) aryloxy as defined in A18 herein;
19) azido;
20) carboxyl;
21) carboxylalkyl as defined in A21 herein;
22) cyano;
23) halo as defined in A23 herein;
24) nitro;
25) heteroaryl as defined in F herein;
26) heterocyclic as defined in G herein;
27) aminoacyloxy as defined in A27 herein;
28) oxyacylamino as defined in A28 herein;
29) thioalkoxy as defined in A29 herein;
30) substituted thioalkoxy as defined in A30 herein;
31) thioaryloxy as defined in A31 herein;

32) thioheteroaryloxy as defined in A32 herein;

33) -SO-alkyl as defined in A33 herein;

34) -SO-substituted alkyl as defined in A34 herein;

35) -SO-aryl as defined in A35 herein;

36) -SO-heteroaryl as defined in A36 herein;

37) $-SO_2$-alkyl as defined in A37 herein;

38) $-SO_2$-substituted alkyl as defined in A38 herein;

39) $-SO_2$-aryl as defined in A39 herein;

40) $-SO_2$-heteroaryl as defined in A40 herein; and

41) trihalomethyl as defined in A41 herein;

G) heterocyclic of from 1 to 15 ring carbon atoms and from 1 to 4 ring atoms selected from nitrogen, sulfur and oxygen, substituted with from 1 to 5 substituents selected from:

1) alkoxy as defined in A5 herein;

2) substituted alkoxy as defined in A9 herein;

3) cycloalkyl as defined in B herein;

4) substituted cycloalkyl as defined in C herein;

5) cycloalkenyl as defined in D herein;

6) substituted cycloalkenyl as defined in E herein;

7) acyl as defined in A3 herein;

8) acylamino as defined in A15 herein;

9) acyloxy as defined in A1 herein;

10) amino as defined in A12 herein;

11) substituted amino as defined in A13 herein;

12) aminoacyl as defined in A14 herein;

13) aminoacyloxy as defined in A27 herein;

14) oxyacylamino as defined in A28 herein;

15) cyano;

16) halogen wherein halo is defined in A23 herein;

17) hydroxyl;

18) carboxyl;

19) carboxylalkyl as defined in A21 herein;

20) keto as defined in C20 herein;

21) thioketo as defined in C21 herein;

22) thiol as defined in C22 herein;

23) thioalkoxy as defined in A29 herein;

24) substituted thioalkoxy as defined in A30 herein;

25) aryl as defined in A herein;

26) aryloxy as defined in A18 herein;

27) heteroaryl as defined in F herein;

28) heteroaryloxy as defined in C28 herein;

29) heterocyclic as defined in G herein;

30) heterocyclooxy as defined in C30 herein;

31) hydroxyamino;

32) alkoxyamino as defined in C32 herein;

33) nitro;

34) -SO-alkyl as defined in A33 herein;

35) -SO-substituted alkyl as defined in A34 herein;

36) -SO-aryl as defined in A35 herein;

37) -SO-heteroaryl as defined in A36 herein;

38) $-SO_2$-alkyl as defined in A37 herein;

39) $-SO_2$-substituted alkyl as defined in A38 herein;

40) $-SO_2$-aryl as defined in A39 herein; and

41) $-SO_2$-heteroaryl as defined in A40 herein;

ring *B*, together with the atoms of the ϵ-caprolactam to which it is attached, forms a carbocyclic or heterocyclic ring selected from the group consisting of:

H) aryl as defined in A herein;

I) cycloalkyl as defined in B herein;

J) substituted cycloalkyl as defined in C herein;

K) cycloalkenyl as defined in D herein;

L) substituted cycloalkenyl as defined in E herein;

M) heteroaryl as defined in F herein; and

N) heterocyclic as defined in G herein;

ring *C*, together with the atoms of the ϵ-caprolactam to which it is attached, forms a heteroaryl as defined in F herein or heterocyclic ring as defined in G herein;

R^1 is selected from the group consisting of:

O) hydrogen; and

P) an amino-blocking group being any group, bound to an amino group, which prevents undesired reactions from occurring at the amino group and which may be removed by conventional chemical and/or enzymatic procedures to reestablish the amino group;

R^2 is selected from the group consisting of:

Q) hydrogen;

R) alkyl of from 1 to 20 carbon atoms;

S) substituted alkyl of from 1 to 20 carbon atoms, having from 1 to 5 substituents selected from:

1) alkoxy as defined in A5 herein;
2) substituted alkoxy as defined in A9 herein;
3) cycloalkyl as defined in B herein;
4) substituted cycloalkyl as defined in C herein;
5) cycloalkenyl as defined in D herein;
6) substituted cycloalkenyl as defined in E herein;
7) acyl as defined in A3 herein;
8) acylamino as defined in A15 herein;
9) acyloxy as defined in A1 herein;
10) amino as defined in A12 herein;
11) substituted amino as defined in A13 herein;
12) aminoacyl as defined in A14 herein;
13) aminoacyloxy as defined in A27 herein;
14) oxyacylamino as defined in A28 herein;
15) cyano;
16) halogen wherein halo is defined in A23 herein;
17) hydroxyl;

18) carboxyl;

19) carboxylalkyl as defined in A21 herein;

20) keto as defined in C20 herein;

21) thioketo as defined in C21 herein;

22) thiol as defined in C22 herein;

23) thioalkoxy as defined in A29 herein;

24) substituted thioalkoxy as defined in A30 herein;

25) aryl as defined in A herein;

26) aryloxy as defined in A18 herein;

27) heteroaryl as defined in F herein;

28) heteroaryloxy as defined in C28 herein;

29) heterocyclic as defined in G herein;

30) heterocyclooxy as defined in C30 herein;

31) hydroxyamino;

32) alkoxyamino as defined in C32 herein;

33) nitro;

34) -SO-alkyl as defined in A33 herein;

35) -SO-substituted alkyl as defined in A34 herein;

36) -SO-aryl as defined in A35 herein;

37) -SO-heteroaryl as defined in A36 herein;

38) $-SO_2$-alkyl as defined in A37 herein;

39) $-SO_2$-substituted alkyl as defined in A38 herein;

40) $-SO_2$-aryl as defined in A39 herein; and

41) $-SO_2$-heteroaryl as defined in A40 herein;

T) alkenyl of from 2 to 10 carbon atoms and 1-2 sites of alkenyl unsaturation;

U) substituted alkenyl having from 1 to 3 substituents selected from the group consisting of:

1) alkoxy as defined in A5 herein;

2) substituted alkoxy as defined in A9 herein;

3) cycloalkyl as defined in B herein;

4) substituted cycloalkyl as defined in C herein;

5) cycloalkoxy wherein alkoxy is defined in A5 herein ;

6) substituted cycloalkoxyl wherein substituted alkoxy is defined in A9 herein;

7) acyl as defined in A3 herein;

8) acylamino as defined in A15 herein;

9) acyloxy as defined in A1 herein;

10) amino as defined in A12 herein;

11) substituted amino as defined in A13 herein;

12) aminoacyl as defined in A14 herein;

13) aminoacyloxy as defined in A27 herein;

14) cyano;

15) halogen wherein halo is defined in A23 herein;

16) hydroxyl;

17) carboxyl;

18) carboxylalkyl as defined in A21 herein;

19) keto as defined in C20 herein;

20) thioketo as defined in C21 herein;

21) thiol as defined in C22 herein;

22) thioalkoxy as defined in A29 herein;

23) substituted thioalkoxy as defined in A30 herein;

24) aryl as defined in A herein;

25) heteroaryl as defined in F herein;

26) heterocyclic as defined in G herein;

27) heterocyclooxy as defined in C30 herein;

28) nitro;

29) -SO-alkyl as defined in A33 herein;

30) -SO-substituted alkyl as defined in A34 herein;

31) -SO-aryl as defined in A35 herein;

32) -SO-heteroaryl as defined in A36 herein;

33) $-SO_2$-alkyl as defined in A37 herein;

34) $-SO_2$-substituted alkyl as defined in A38 herein;

35) -SO_2-aryl as defined in A39 herein; and

36) -SO_2-heteroaryl as defined in A40 herein;

V) alkynyl of from 2 to 10 carbon atoms and from 1-2 sites of alkynyl unsaturation;

W) substituted alkynyl of from 1 to 3 substituents selected from:

1) alkoxy as defined in A5 herein;

2) substituted alkoxy as defined in A9 herein;

3) cycloalkyl as defined in B herein;

4) substituted cycloalkyl as defined in C herein;

5) cycloalkoxy as defined in U5 herein;

6) substituted cycloalkoxyl as defined in U6 herein;

7) acyl as defined in A3 herein;

8) acylamino as defined in A15 herein;

9) acyloxy as defined in A1 herein;

10) amino as defined in A12 herein;

11) substituted amino as defined in A13 herein;

12) aminoacyl as defined in A14 herein;

13) aminoacyloxy as defined in A27 herein;

14) cyano;

15) halogen wherein halo is defined in A23 herein;

16) hydroxyl;

17) carboxyl;

18) carboxylalkyl as defined in A21 herein;

19) keto as defined in C20 herein;

20) thioketo as defined as C21 herein;

21) thiol as defined as C22 herein;

22) thioalkoxy as defined in A29 herein;

23) substituted thioalkoxy as defined in A30 herein;

24) aryl as defined in A herein;

25) heteroaryl as defined in F herein;

26) heterocyclic as defined in G herein;

27) heterocyclooxy as defined in C30 herein;

28) nitro;

29) -SO-alkyl as defined in A33 herein;

30) -SO-substituted alkyl as defined in A34 herein;

31) -SO-aryl as defined in A35 herein;

32) -SO-heteroaryl as defined in A36 herein;

33) $-SO_2$-alkyl as defined in A37 herein;

34) $-SO_2$-substituted alkyl as defined in A38 herein;

35) $-SO_2$-aryl as defined in A39 herein; and

36) $-SO_2$-heteroaryl as defined in A40 herein;

X) aryl as defined in A herein;

Y) cycloalkyl as defined in B herein;

Z) heteroaryl as defined in F herein; and

AA) heterocyclic as defined in G herein;

R^3 is selected from the group consisting of:

BB) hydrogen;

CC) alkyl as defined in R herein;

DD) substituted alkyl as defined in S herein;

EE) alkenyl as defined in T herein;

FF) substituted alkenyl as defined in U herein;

GG) alkynyl as defined in as defined in V herein;

HH) substituted alkynyl as defined in W herein;

II) acyl as defined in A3 herein;

JJ) aryl as defined in A herein;

KK) cycloalkyl as defined in B herein;

LL) substituted cycloalkyl as defined in C herein;

MM) cycloalkenyl as defined in D herein;

NN) substituted cycloalkenyl as defined in E herein;

OO) heteroaryl as defined in F herein; and

PP) heterocyclic as defined in G herein;

each R^4 is independently selected from the group consisting of:

QQ) alkyl as defined in R herein;

RR) substituted alkyl as defined in S herein;

SS) alkenyl as defined in T herein;

TT) substituted alkenyl as defined in U herein;

UU) alkynyl as defined in V herein;

VV) substituted alkynyl as defined in W herein;

WW) aryl as defined in A herein;

XX) cycloalkyl as defined in B herein;

YY) substituted cycloalkyl as defined in C herein;

ZZ) cycloalkenyl as defined in D herein;

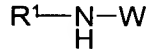
AAA) substituted cycloalkenyl as defined in E herein;

BBB) heteroaryl as defined in F herein; and

CCC) heterocyclic as defined in G herein;

m is an integer from 0 to 2; [and] or salts thereof.

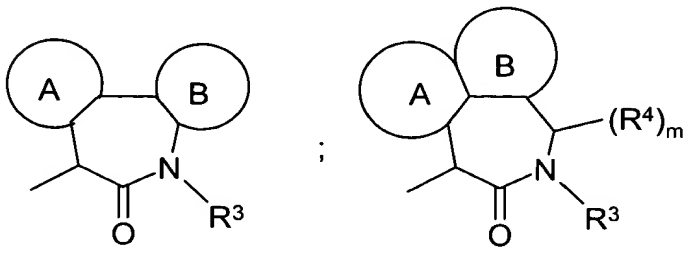
64. (Twice Amended) A compound of formula II:

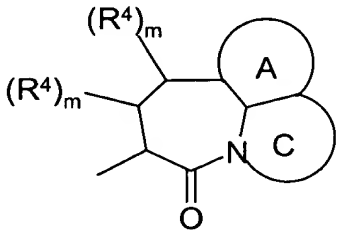


II

wherein

W is a substituted ϵ-caprolactam selected from the group consisting of:





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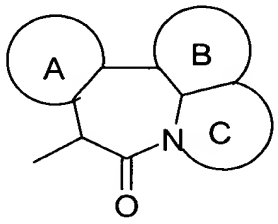

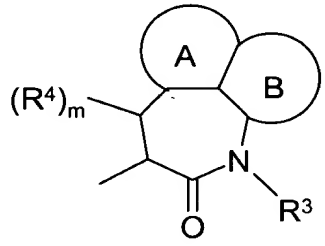

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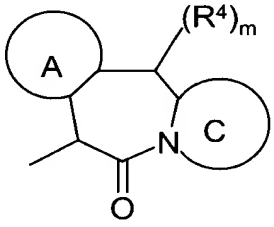
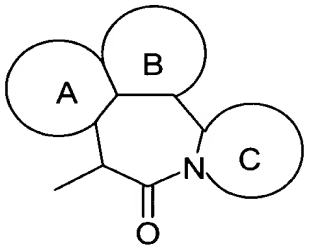
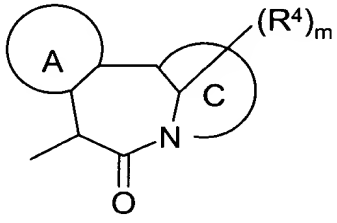




and



wherein

ring *A*, together with the atoms of the ϵ-caprolactam to which it is attached, forms a carbocyclic or heterocyclic ring selected from the group consisting of:

A) aryl having from 6 to 14 ring carbon atoms substituted with from 1 to 5 substituents selected from the group consisting of:

1) acyloxy selected from alkyl-C(O)O-, substituted alkyl -C(O)O-, cycloalkyl-C(O)O-, substituted cycloalkyl-C(O)O-, aryl-C(O)O-, heteroaryl-C(O)O-, and heterocyclic-C(O)O- wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein cycloalkyl is defined in B herein; wherein substituted cycloalkyl is defined in C herein; wherein aryl is defined in A herein; wherein

heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

2) hydroxy;

3) acyl selected from alkyl-C(O)-, substituted alkyl-C(O)-, cycloalkyl-C(O)-, substituted cycloalkyl-C(O)-, aryl-C(O)-, heteroaryl-C(O)- and heterocyclic-C(O)- wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein cycloalkyl is defined in B herein; wherein substituted cycloalkyl is defined in C herein; wherein aryl is defined in A herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

4) alkyl as defined in R herein;

5) alkoxy having the formula alkyl-O- wherein alkyl is defined in R herein;

6) alkenyl as defined in T herein;

7) alkynyl as defined in V herein;

8) substituted alkyl as defined in S herein;

9) substituted alkoxy of the formula substituted alkyl-O- where substituted alkyl is as defined in S herein;

10) substituted alkenyl as defined in U herein;

11) substituted alkynyl as defined in W herein;

12) amino having the formula $-NH_2-$;

13) substituted amino having the formula $-N(R)_2$ where each R is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, aryl, cycloalkyl, substituted cycloalkyl, heteroaryl, heterocyclic and where both R groups are joined to form a heterocyclic group; wherein alkyl is defined in R herein; substituted alkyl is defined in S herein; wherein alkenyl is defined in T herein; wherein substituted alkenyl is defined in U herein; wherein alkynyl is defined in V herein; wherein substituted alkynyl is defined in W herein; wherein aryl is defined in A herein; wherein cycloalkyl is

defined in B herein; wherein substituted cycloalkyl is defined in C herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

14) aminoacyl having the formula -NRC(O)R wherein each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl or heterocyclic; wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein aryl is defined in A herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

15) acylamino having the formula -C(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic or where both R groups are joined to form a heterocyclic group; wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein aryl is defined in A herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

16) alkaryl of the formula -alkylene-aryl having 1 to 8 carbon atoms in the alkylene moiety wherein aryl is defined in A herein and alkylene is a divalent alkyl where alkyl is defined in R herein;

17) aryl as defined in A herein;

18) aryloxy having the formula -aryl-O wherein aryl is defined in A herein;

19) azido;

20) carboxyl;

21) carboxylalkyl having the formula -C(O)Oalkyl and -C(O)O-substituted alkyl wherein alkyl as defined in R herein and substituted alkyl is defined in S herein;

22) cyano;

23) halo selected from fluoro, chloro, bromo and iodo;

24) nitro;

25) heteroaryl as defined in F herein;

26) heterocyclic as defined in G herein;

27) aminoacyloxy having the formula -NRC(O)OR wherein each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl or heterocyclic; wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein aryl is defined in A herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

28) oxyacylamino having the formula -OC(O)NRR where each R is independently hydrogen, alkyl, substituted alkyl, aryl, heteroaryl, or heterocyclic wherein alkyl is defined in R herein; wherein substituted alkyl is defined in S herein; wherein aryl is defined in A herein; wherein heteroaryl is defined in F herein; and wherein heterocyclic is defined in G herein;

29) thioalkoxy having the formula -S-alkyl, wherein alkyl as defined in R herein;

30) substituted thioalkoxy having the formula -S-substituted alkyl, wherein substituted alkyl is defined in S herein;

31) thioaryloxy having the formula aryl-S- wherein aryl is defined in A herein;

32) thioheteroaryloxy having the formula heteroaryl-S- wherein heteroaryl is defined F herein;

33) -SO-alkyl wherein alkyl is defined in R herein;

34) -SO-substituted alkyl wherein substituted alkyl is defined in S herein;

35) -SO-aryl wherein aryl is defined in A herein;

36) -SO-heteroaryl wherein heteroaryl is defined in F herein;

37) -SO_2-alkyl wherein alkyl is defined in R herein;

38) -SO_2-substituted alkyl wherein substituted alkyl is defined in S herein;

39) -SO_2-aryl wherein aryl is defined in A herein;

40) -SO_2-heteroaryl wherein heteroaryl is defined in F herein; and

41) trihalomethyl wherein halo is defined in A23 herein;

B) cycloalkyl of from 3 to 12 carbon atoms;

C) substituted cycloalkyl having 3 to 12 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) alkoxy as defined in A5 herein;
2) substituted alkoxy as defined in A9 herein;
3) cycloalkyl as defined in B herein;
4) substituted cycloalkyl as defined in C herein;
5) cycloalkenyl as defined in D herein;
6) substituted cycloalkenyl as defined in E herein;
7) acyl as defined in A3 herein;
8) acylamino as defined in A15 herein;
9) acyloxy as defined in A1 herein;
10) amino as defined in A12 herein;
11) substituted amino as defined in A13 herein;
12) aminoacyl as defined in A14 herein;
13) aminoacyloxy as defined in A27 herein;
14) oxyacylamino as defined in A28 herein;
15) cyano;
16) halogen wherein halo is defined in A23 herein;
17) hydroxyl;
18) carboxyl;
19) carboxylalkyl as defined in A21 herein;
20) keto having the formula =O;
21) thioketo having the formula =S;
22) thiol having the formula -SH;
23) thioalkoxy as defined in A29 herein;
24) substituted thioalkoxy as defined in A30 herein;
25) aryl as defined in A herein;
26) aryloxy as defined in A18 herein;
27) heteroaryl as defined in F herein;
28) heteroaryloxy having the formula -O-heteroaryl wherein heteroaryl is defined in F herein;

29) heterocyclic as defined in G herein;

30) heterocyclooxy having the formula -O-heterocyclic wherein heterocyclic is defined in G herein;

31) hydroxyamino;

32) alkoxyamino wherein alkoxy is defined in A5 herein;

33) nitro;

34) -SO-alkyl as defined in A33 herein;

35) -SO-substituted alkyl as defined in A34 herein;

36) -SO-aryl as defined in A35 herein;

37) -SO-heteroaryl as defined in A36 herein;

38) $-SO_2$-alkyl as defined in A37 herein;

39) $-SO_2$-substituted alkyl as defined in A38 herein;

40) $-SO_2$-aryl as defined in A39 herein; and

41) $-SO_2$-heteroaryl as defined in A40 herein;

D) cycloalkenyl of from 4 to 8 carbon atoms;

E) substituted cycloalkenyl having from 4 to 8 carbon atoms and from 1 to 5 substituents selected from the group consisting of:

1) alkoxy as defined in A5 herein;

2) substituted alkoxy as defined in A9 herein;

3) cycloalkyl as defined in B herein;

4) substituted cycloalkyl as defined in C herein;

5) cycloalkenyl as defined in D herein;

6) substituted cycloalkenyl as defined in E herein;

7) acyl as defined in A3 herein;

8) acylamino as defined in A15 herein;

9) acyloxy as defined in A1 herein;

10) amino as defined in A12 herein;

11) substituted amino as defined in A13 herein;

12) aminoacyl as defined in A14 herein;

13) aminoacyloxy as defined in A27 herein;

14) oxyacylamino as defined in A28 herein;

15) cyano;

16) halogen wherein halo is defined in A23 herein;

17) hydroxyl;

18) carboxyl;

19) carboxylalkyl as defined in A21 herein;

20) keto as defined in C20 herein;

21) thioketo as defined in C21 herein;

22) thiol as defined in C22 herein;

23) thioalkoxy as defined in A29 herein;

24) substituted thioalkoxy as defined in A30 herein;

25) aryl as defined in A herein;

26) aryloxy as defined in A18 herein;

27) heteroaryl as defined in F herein;

28) heteroaryloxy as defined in C28 herein;

29) heterocyclic as defined in G herein;

30) heterocyclooxy as defined in C30 herein;

31) hydroxyamino;

32) alkoxyamino as defined in C32 herein;

33) nitro;

34) -SO-alkyl as defined in A33 herein;

35) -SO-substituted alkyl as defined in A34 herein;

36) -SO-aryl as defined in A35 herein;

37) -SO-heteroaryl as defined in A36 herein;

38) $-SO_2$-alkyl as defined in A37 herein;

39) $-SO_2$-substituted alkyl as defined in A38 herein;

40) $-SO_2$-aryl as defined in A39 herein; and

41) $-SO_2$-heteroaryl as defined in A40 herein;

F) heteroaryl of from 1 to 15 ring carbon atoms and 1 to 4 ring heteroatoms selected from oxygen, nitrogen and sulfur, substituted with from 1 to 5 substituents selected from:

1) acyloxy as defined in A1 herein;

2) hydroxy;
3) acyl as defined in A3 herein;
4) alkyl as defined in R herein;
5) alkoxy as defined in A5 herein;
6) alkenyl as defined in T herein;
7) alkynyl as defined in V herein;
8) substituted alkyl as defined in S herein;
9) substituted alkoxy as defined in A9 herein;
10) substituted alkenyl as defined in U herein;
11) substituted alkynyl as defined in W herein;
12) amino as defined in A12 herein;
13) substituted amino as defined in A13 herein;
14) aminoacyl as defined in A14 herein;
15) acylamino as defined in A15 herein;
16) alkaryl as defined in A16 herein;
17) aryl as defined in A herein;
18) aryloxy as defined in A18 herein;
19) azido;
20) carboxyl;
21) carboxylalkyl as defined in A21 herein;
22) cyano;
23) halo as defined in A23 herein;
24) nitro;
25) heteroaryl as defined in F herein;
26) heterocyclic as defined in G herein;
27) aminoacyloxy as defined in A27 herein;
28) oxyacylamino as defined in A28 herein;
29) thioalkoxy as defined in A29 herein;
30) substituted thioalkoxy as defined in A30 herein;
31) thioaryloxy as defined in A31 herein;
32) thioheteroaryloxy as defined in A32 herein;

33) -SO-alkyl as defined in A33 herein;

34) -SO-substituted alkyl as defined in A34 herein;

35) -SO-aryl as defined in A35 herein;

36) -SO-heteroaryl as defined in A36 herein;

37) $-SO_2$-alkyl as defined in A37 herein;

38) $-SO_2$-substituted alkyl as defined in A38 herein;

39) $-SO_2$-aryl as defined in A39 herein;

40) $-SO_2$-heteroaryl as defined in A40 herein; and

41) trihalomethyl as defined in A41 herein;

G) heterocyclic of from 1 to 15 ring carbon atoms and from 1 to 4 ring atoms selected from nitrogen, sulfur and oxygen, substituted with from 1 to 5 substituents selected from:

1) alkoxy as defined in A5 herein;

2) substituted alkoxy as defined in A9 herein;

3) cycloalkyl as defined in B herein;

4) substituted cycloalkyl as defined in C herein;

5) cycloalkenyl as defined in D herein;

6) substituted cycloalkenyl as defined in E herein;

7) acyl as defined in A3 herein;

8) acylamino as defined in A15 herein;

9) acyloxy as defined in A1 herein;

10) amino as defined in A12 herein;

11) substituted amino as defined in A13 herein;

12) aminoacyl as defined in A14 herein;

13) aminoacyloxy as defined in A27 herein;

14) oxyacylamino as defined in A28 herein;

15) cyano;

16) halogen wherein halo is defined in A23 herein;

17) hydroxyl;

18) carboxyl;

19) carboxylalkyl as defined in A21 herein;

20) keto as defined in C20 herein;

21) thioketo as defined in C21 herein;

22) thiol as defined in C22 herein;

23) thioalkoxy as defined in A29 herein;

24) substituted thioalkoxy as defined in A30 herein;

25) aryl as defined in A herein;

26) aryloxy as defined in A18 herein;

27) heteroaryl as defined in F herein;

28) heteroaryloxy as defined in C28 herein;

29) heterocyclic as defined in G herein;

30) heterocyclooxy as defined in C30 herein;

31) hydroxyamino;

32) alkoxyamino as defined in C32 herein;

33) nitro;

34) -SO-alkyl as defined in A33 herein;

35) -SO-substituted alkyl as defined in A34 herein;

36) -SO-aryl as defined in A35 herein;

37) -SO-heteroaryl as defined in A36 herein;

38) $-SO_2$-alkyl as defined in A37 herein;

39) $-SO_2$-substituted alkyl as defined in A38 herein;

40) $-SO_2$-aryl as defined in A39 herein; and

41) $-SO_2$-heteroaryl as defined in A40 herein;

ring *B*, together with the atoms of the ϵ-caprolactam to which it is attached, forms a carbocyclic or heterocyclic ring selected from the group consisting of:

H) aryl as defined in A herein;

I) cycloalkyl as defined in B herein;

J) substituted cycloalkyl as defined in C herein;

K) cycloalkenyl as defined in D herein;

L) substituted cycloalkenyl as defined in E herein;

M) heteroaryl as defined in F herein; and

N) heterocyclic as defined in G herein;

ring *C*, together with the atoms of the ϵ-caprolactam to which it is attached, forms a heteroaryl as defined in F herein or heterocyclic ring as defined in G herein;

R^1 is selected from the group consisting of:

O) hydrogen; and

P) an amino-blocking group being any group, bound to an amino group, which prevents undesired reactions from occurring at the amino group and which may be removed by conventional chemical and/or enzymatic procedures to reestablish the amino group;

R^3 is selected from the group consisting of:

Q) hydrogen;

[R) alkyl as defined in R herein;

S) substituted alkyl as defined in S herein;

T) alkenyl as defined in T herein;

U) substituted alkenyl as defined in U herein;

V) alkynyl as defined in as defined in V herein;

W) substituted alkynyl as defined in W herein;]

R) alkyl of from 1 to 20 carbon atoms;

S) substituted alkyl of from 1 to 20 carbon atoms, having from 1 to 5 substituents selected from:

1) alkoxy as defined in A5 herein;

2) substituted alkoxy as defined in A9 herein;

3) cycloalkyl as defined in B herein;

4) substituted cycloalkyl as defined in C herein;

5) cycloalkenyl as defined in D herein;

6) substituted cycloalkenyl as defined in E herein;

7) acyl as defined in A3 herein;

8) acylamino as defined in A15 herein;

9) acyloxy as defined in A1 herein;

10) amino as defined in A12 herein;

11) substituted amino as defined in A13 herein;

12) aminoacyl as defined in A14 herein;

13) aminoacyloxy as defined in A27 herein;

14) oxyacylamino as defined in A28 herein;

15) cyano;

16) halogen wherein halo is defined in A23 herein;

17) hydroxyl;

18) carboxyl;

19) carboxylalkyl as defined in A21 herein;

20) keto as defined in C20 herein;

21) thioketo as defined in C21 herein;

22) thiol as defined in C22 herein;

23) thioalkoxy as defined in A29 herein;

24) substituted thioalkoxy as defined in A30 herein;

25) aryl as defined in A herein;

26) aryloxy as defined in A18 herein;

27) heteroaryl as defined in F herein;

28) heteroaryloxy as defined in C28 herein;

29) heterocyclic as defined in G herein;

30) heterocyclooxy as defined in C30 herein;

31) hydroxyamino;

32) alkoxyamino as defined in C32 herein;

33) nitro;

34) -SO-alkyl as defined in A33 herein;

35) -SO-substituted alkyl as defined in A34 herein;

36) -SO-aryl as defined in A35 herein;

37) -SO-heteroaryl as defined in A36 herein;

38) $-SO_2$-alkyl as defined in A37 herein;

39) $-SO_2$-substituted alkyl as defined in A38 herein;

40) $-SO_2$-aryl as defined in A39 herein; and

41) $-SO_2$-heteroaryl as defined in A40 herein;

T) alkenyl of from 2 to 10 carbon atoms and 1-2 sites of alkenyl unsaturation;

U) substituted alkenyl having from 1 to 3 substituents selected from the group consisting of:

1) alkoxy as defined in A5 herein;
2) substituted alkoxy as defined in A9 herein;
3) cycloalkyl as defined in B herein;
4) substituted cycloalkyl as defined in C herein;
5) cycloalkoxy wherein alkoxy is defined in A5 herein ;
6) substituted cycloalkoxyl wherein substituted alkoxy is defined in A9 herein;
7) acyl as defined in A3 herein;
8) acylamino as defined in A15 herein;
9) acyloxy as defined in A1 herein;
10) amino as defined in A12 herein;
11) substituted amino as defined in A13 herein;
12) aminoacyl as defined in A14 herein;
13) aminoacyloxy as defined in A27 herein;
14) cyano;
15) halogen wherein halo is defined in A23 herein;
16) hydroxyl;
17) carboxyl;
18) carboxylalkyl as defined in A21 herein;
19) keto as defined in C20 herein;
20) thioketo as defined in C21 herein;
21) thiol as defined in C22 herein;
22) thioalkoxy as defined in A29 herein;
23) substituted thioalkoxy as defined in A30 herein;
24) aryl as defined in A herein;
25) heteroaryl as defined in F herein;
26) heterocyclic as defined in G herein;
27) heterocyclooxy as defined in C30 herein;
28) nitro;

29) -SO-alkyl as defined in A33 herein;

30) -SO-substituted alkyl as defined in A34 herein;

31) -SO-aryl as defined in A35 herein;

32) -SO-heteroaryl as defined in A36 herein;

33) -SO_2-alkyl as defined in A37 herein;

34) -SO_2-substituted alkyl as defined in A38 herein;

35) -SO_2-aryl as defined in A39 herein; and

36) -SO_2-heteroaryl as defined in A40 herein;

V) alkynyl of from 2 to 10 carbon atoms and from 1-2 sites of alkynyl unsaturation;

W) substituted alkynyl of from 1 to 3 substituents selected from:

1) alkoxy as defined in A5 herein;

2) substituted alkoxy as defined in A9 herein;

3) cycloalkyl as defined in B herein;

4) substituted cycloalkyl as defined in C herein;

5) cycloalkoxy as defined in U5 herein;

6) substituted cycloalkoxyl as defined in U6 herein;

7) acyl as defined in A3 herein;

8) acylamino as defined in A15 herein;

9) acyloxy as defined in A1 herein;

10) amino as defined in A12 herein;

11) substituted amino as defined in A13 herein;

12) aminoacyl as defined in A14 herein;

13) aminoacyloxy as defined in A27 herein;

14) cyano;

15) halogen wherein halo is defined in A23 herein;

16) hydroxyl;

17) carboxyl;

18) carboxylalkyl as defined in A21 herein;

19) keto as defined in C20 herein;

20) thioketo as defined as C21 herein;

21) thiol as defined as C22 herein;

22) thioalkoxy as defined in A29 herein;

23) substituted thioalkoxy as defined in A30 herein;

24) aryl as defined in A herein;

25) heteroaryl as defined in F herein;

26) heterocyclic as defined in G herein;

27) heterocyclooxy as defined in C30 herein;

28) nitro;

29) -SO-alkyl as defined in A33 herein;

30) -SO-substituted alkyl as defined in A34 herein;

31) -SO-aryl as defined in A35 herein;

32) -SO-heteroaryl as defined in A36 herein;

33) $-SO_2$-alkyl as defined in A37 herein;

34) $-SO_2$-substituted alkyl as defined in A38 herein;

35) $-SO_2$-aryl as defined in A39 herein; and

36) $-SO_2$-heteroaryl as defined in A40 herein;

X) acyl as defined in A3 herein;

Y) aryl as defined in A herein;

Z) cycloalkyl as defined in B herein;

AA) substituted cycloalkyl as defined in C herein;

BB) cycloalkenyl as defined in D herein;

CC) substituted cycloalkenyl as defined in E herein;

DD) heteroaryl as defined in F herein; and

EE) heterocyclic as defined in G herein;

each R^4 is independently selected from the group consisting of:

FF) alkyl as defined in R herein;

GG) substituted alkyl as defined in S herein;

HH) alkenyl as defined in T herein;

II) substituted alkenyl as defined in U herein;

JJ) alkynyl as defined in V herein;

KK) substituted alkynyl as defined in W herein;

LL) aryl as defined in A herein;

MM) cycloalkyl as defined in B herein;

NN) substituted cycloalkyl as defined in C herein;

OO) cycloalkenyl as defined in D herein;

PP) substituted cycloalkenyl as defined in E herein;

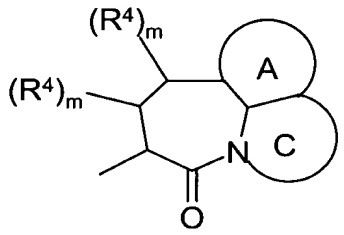
QQ) heteroaryl as defined in F herein; and

RR) heterocyclic as defined in G herein;

m is an integer from 0 to 2; [and] or salts thereof

with the proviso that:

when W is



wherein ring A is phenyl substituted with hydroxy, lower alkoxy, nitro, amino or halogen; ring C is substituted cycloalkyl having 4 or 5 carbon atoms and carboxyl or carboxylalkyl substituent in α-position to nitrogen, then R^1 is not $-CO-CR^5R^6-(CH_2)_nS-R^7$ wherein R^5 represents hydrogen, lower alkyl, aryl, aryl-lower alkyl, cycloalkyl, cycloalkyl-lower alkyl, biaryl, biaryl-lower alkyl or trifluoromethyl; R^6 represents hydrogen or lower alkyl; or R^5 and R^6 together with the carbon to which they are attached represent cycloalkylene or benzo-fused cycloalkylene, R^7 represents hydrogen or acyl and n represents zero or one.

109. (Amended) A compound selected from the group consisting of:

5-amino-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-amino)-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-amino)-7-(2-methylpropyl)-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-7-(2-methylpropyl)-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-amino)-7-(methoxycarbonymethyl)-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-7-(methoxycarbonylmethyl)-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-amino)-7-(3,3-dimethyl-butanonyl)-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-7-(3,3-dimethyl-2-butanonyl)-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-7-phenbutyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-7-cyclopropymethyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-7-(2',2',2'-trifluoroethyl)-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-7-cyclohexyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-7-hexyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-9-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-10-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-13-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-7-methyl-1,2,3,4,5,7-hexahydro-6H-dicyclohexyl[b,d]azepin-6-one

5-(*N*-Boc-L-alaninyl)amino-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-alaninyl)amino-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-valinyl)amino-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-valinyl)amino-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-*tert*-leucinyl)amino-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-*tert*-leucinyl)amino-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-alaninyl)amino-9-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-alaninyl)amino-9-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-alaninyl)amino-10-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-alaninyl)amino-10-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-alaninyl)amino-13-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-alaninyl)amino-13-fluoro-7-methyl-5,7-dihydro-6H- dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-alaninyl)amino-7-cyclopropylmethyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-alaninyl)amino-7-cyclopropylmethyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-alaninyl)amino-7-phenbutyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-alaninyl)amino-7-phenbutyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-valinyl)amino-7-cyclopropylmethyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-valinyl)amino-7-cyclopropylmethyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-valinyl)amino-7-phenbutyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-valinyl)amino-7-phenbutyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-valinyl)amino-7-hexyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-valinyl)amino-7-hexyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-valinyl)amino-9-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-valinyl)amino-9-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-valinyl)amino-10-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-valinyl)amino-10-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(*N*-Boc-L-valinyl)amino-13-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-(L-valinyl)amino-13-fluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-9,13-difluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-amino-10,13-difluoro-7-methyl-5,7-dihydro-6H-dibenz[b,d]azepin-6-one

5-aminohexahydropyrido[a]benz[d]azepin-6-one

9-amino-5,6-Dihydro-4H-quino[8,1-ab][3]benzazepin-8(9H)-one

9-(N′-Boc-L-alaninyl)amino-5,6-Dihydro-4H-quino[8,1-ab][3]benzazepin-8(9H)-one

9-(N′-L-alaninyl)amino-5,6-dihydro-4H-quino[8,1-ab][3]benzazepin-8(9H)-one

7-amino-1,3,4,7,12,12a-hexahydropyrido[2,1-b][3]benzazepin-6(2H)-one

1-amino-4,5,6,7-tetrahydro-3,7-methano-3H-3-benzazonin-2(1H)-one

1-(N′-Boc-L-alaninyl)amino-4,5,6,7-tetrahydro-3,7-methano-3H-3-benzazonin-2(1H)-one

1-(N′-L-alaninyl)amino-4,5,6,7-tetrahydro-3,7-methano-3H-3-benzazonin-2(1H)-one

[and] or salts thereof.